

217/782-2113

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT

PERMITTEE

Johns Byrne Company
Attn: Tim Uchwat
7350 Croname Road
Niles, Illinois 60714-3932

<u>Application No.:</u> 05030091	<u>I.D. No.:</u> 031201AEO
<u>Applicant's Designation:</u>	<u>Date Received:</u> March 23, 2005
<u>Subject:</u> Sheet-fed Lithographic Printing Plant	
<u>Date Issued:</u>	<u>Expiration Date:</u>
<u>Location:</u> 7350 Croname Road, Niles, Cook County, 60714	

This permit is hereby granted to the above-designated Permittee to OPERATE emission unit(s) and/or air pollution control equipment consisting of five sheet-fed offset lithographic printing presses pursuant to the above-referenced application. This Permit is subject to standard conditions attached hereto and the following special condition(s):

- 1a. This federally enforceable state operating permit is issued:
 - i. To limit the emissions of air pollutants from the source to less than major source thresholds (i.e., 10 tons/year for a single hazardous air pollutant (HAP) and 25 tons/year for totaled HAPs). As a result the source is excluded from the requirement to obtain a Clean Air Act Permit Program (CAAPP) permit.
 - ii. To limit the emissions of volatile organic materials (VOM) from the construction of new emission units and other modifications at the source, which occurred without first obtaining construction permit(s) between November 15, 1992 and June 15, 2005 (the period during which the Chicago area was classified as severe nonattainment for ozone), to less than 25 tons/year. As a result the source is excluded from the requirements of 35 Ill. Adm. Code Part 203, Major Stationary Source Construction and Modification.
 - iii. To limit the potential emissions of VOM from the source to less than 25 tons/year. As a result, the source is excluded from the requirement of 35 Ill. Adm. Code Part 205, Emission Reduction Market System. The maximum emissions of this source, as limited by the conditions of this permit, are described in Attachment A.
- b. Prior to issuance a draft of this permit has undergone a public notice and comment period.
- c. This permit supersedes all operating permits issued for this location.

2. The sheet-fed lithographic printing presses are subject to the emission limitations and control requirements of 35 Ill. Adm. Code 218.407(a) and shall comply with the following requirements:
 - a. The VOM content of the as-applied fountain solution is 5 percent or less, by volume;
 - b. A cleaning solution used on any lithographic printing line:
 - i. The VOM content of the as-used cleaning solution is less than or equal to 30 percent, by weight; or
 - ii. The VOM composite partial vapor pressure of the as-used cleaning solution is less than 10 mmHg at 20°C (68°F);
 - c. The VOM containing cleaning materials, including used cleaning towels, associated with any lithographic printing line are kept, stored or disposed of in any manner other than in closed containers.
3. The paper coating operations performed on the printing press are subject to emission limitations of 35 Ill. Adm. Code Part 218, Subpart F. The VOM content of the coatings, as applied, on the printing press shall not exceed 2.3 lb/gal excluding water and any compounds which are specifically exempted from the definition of VOM.
- 4a. The VOM emissions from the five printing presses (combined) shall not exceed 3.0 tons/month and 23.9 tons/year.
- b. The emissions of Hazardous Air Pollutants (HAP) as listed in Section 112(b) of the Clean Air Act shall be less than 10 tons/year of any single HAP and 25 tons/year of any combination of such HAPs. As a result of this condition, this permit is issued based on the emissions of all HAPs from this source not triggering the requirements to obtain a Clean Air Act Permit Program Permit (CAAPP) permit.
- c. The VOM/HAP emissions shall be calculated using the following equation:
$$E = \sum(I \times V_I \times 0.05) + \sum(S \times V), \text{ where}$$

E - VOM/HAP emissions (ton);

I - ink usage (ton);

V_I - VOM/HAP content of the ink (wt. fraction);

S - coating, varnish, fountain solution and cleaning solvent usage (ton);

V - VOM/HAP content of coating, varnish, fountain solution and cleaning solvents (wt. fraction).

These limits are based on the maximum production rate and 95% ink's VOM retention. Compliance with annual limits shall be determined from a running total of 12 months of data.

- 5a. The Permittee shall maintain daily records of the following items pursuant to 35 Ill. Adm. Code 218.411:
- i. The name and identification of each batch of fountain solution prepared for use on one or more lithographic printing lines, the lithographic printing line(s) or centralized reservoir using such batch of fountain solution, and the applicable VOM content limitation for the batch;
 - ii. Date and time of preparation and each subsequent modification of the batch of fountain solution;
 - iii. Volume and VOM content of each component used in, or subsequently added to, the fountain solution batch; and
 - iv. Calculated VOM content of the as-applied fountain solution; or
 - v. For a fountain solution to which VOM is not added automatically to take a sample of the as-applied fountain solution from the fountain tray or reservoir, as applicable, each time a fresh batch of fountain solution is prepared or each time VOM is added to an existing batch of fountain solution in the fountain tray or reservoir, and shall determine compliance with the VOM content limitation of the as-applied fountain solution by using one of the following options:
 - A. With a refractometer or hydrometer with a visual, analog, or digital readout and with an accuracy of 0.5 percent. The refractometer or hydrometer must be calibrated with a standard solution for the type of VOM used in the fountain solution, in accordance with manufacturer's specifications, against measurements performed to determine compliance. The refractometer or hydrometer must be corrected for temperature at least once per 8-hour shift or once per batch of fountain solution prepared or modified, whichever is longer; or
 - B. With a conductivity meter if it is demonstrated that a refractometer and hydrometer cannot distinguish between compliant and noncompliant fountain solution for the type and amount of VOM in the fountain solution. A source may use a conductivity meter if it demonstrates that both hydrometers and refractometers fail to provide significantly different measurements for standard solutions containing 95 percent, 100 percent and 105 percent of the applicable VOM content limit. The conductivity meter reading for the fountain solution must be referenced to the conductivity of the incoming water. A standard solution shall be used to calibrate the conductivity meter for the type of VOM used in the fountain solution, in accordance with manufacturer's specifications;

- vi. For fountain solutions to which VOM is added at the source with automatic feed equipment, determine the VOM content of the as-applied fountain solution based on the setting of the automatic feed equipment which makes additions of VOM up to a pre-set level. The equipment used to make automatic additions must be installed, calibrated, operated and maintained in accordance with manufacturer's specifications;
- b. For each batch of cleaning solution for which the owner or operator relies on the vapor pressure of the cleaning solution to demonstrate compliance with Section 218.407(a) (4) (B):
 - i. The name and identification of each cleaning solution;
 - ii. Date and time of preparation, and each subsequent modification, of the batch of cleaning solution;
 - iii. The molecular weight, density, and VOM composite partial vapor pressure of each cleaning solvent, as determined in accordance with Section 218.409(e).
- c. The Permittee shall maintain monthly records of the following items:
 - i. Name and amount of inks and other VOM and HAP containing materials used (Ton/mo, Ton/yr) and their VOM and HAP content (Wt.%);
 - ii. VOM and HAP content of fountain solution and cleaning solvent as-applied (Wt.%) and/or cleaning solvent composite vapor pressure (mm of Hg);
 - iii. Monthly and annual VOM and HAP emissions with supporting calculations (tons/mo, tons/yr).
- 6. All records and logs required by this permit shall be retained at a readily accessible location at the source for at least five years from the date of entry and shall be made available for inspection and copying by the Illinois EPA or USEPA upon request. Any records retained in an electronic format (e.g., computer) shall be capable of being retrieved and printed on paper during normal source office hours so as to be able to respond to an Illinois EPA or USEPA request for records during the course of a source inspection.
- 7. If there is an exceedance of or deviation from the requirements of this permit as determined by the records required by this permit, the Permittee shall submit a report to the Illinois EPA's Compliance Section in Springfield, Illinois within 30 days after the exceedance. The report shall include the emissions released in accordance with the recordkeeping requirements, a copy of the relevant records, and a description of the exceedance or deviation and efforts to reduce emissions and future occurrences.

8. Two (2) copies of required reports and notifications shall be sent to:

Illinois Environmental Protection Agency
Division of Air Pollution Control
Compliance Section (#40)
P.O. Box 19276
Springfield, Illinois 62794-9276

and one (1) copy shall be sent to the Illinois EPA's regional office at the following address unless otherwise indicated:

Illinois Environmental Protection Agency
Division of Air Pollution Control
9511 West Harrison
Des Plaines, Illinois 60016

If you have any questions on this, please call Valeriy Brodsky at 217/782-2113.

Donald E. Sutton, P.E.
Manager, Permit Section
Division of Air Pollution Control

DES:VBJ:

cc: Illinois EPA, FOS Region 1
Lotus Notes

Attachment A - Emission Summary

This attachment provides a summary of the maximum emissions from the lithographic printing facility operating in compliance with the requirements of this federally enforceable permit. In preparing this summary, the Illinois EPA used the annual operating scenario which results in maximum emissions from such a plant. The resulting maximum emissions are below the levels, e.g., 25 tons/year for volatile organic material (VOM), 10 tons per year for a single HAP, and 25 tons per year for totaled HAP at which this source would be considered a major source for purposes of the Clean Air Act Permit Program and New Source Review. Actual emissions from this source will be less than predicted in this summary to the extent that less material is handled and control measures are more effective than required in this permit.

Emissions (tons/yr)			
Process	VOM	Single HAP	Total HAP
Five Lithographic Printing Presses	23.9	<10	<25

VJB: